

Serial Number 10/092,152
Amendment Under 37 CFR §111
Reply to Office Action dated October 27, 2003

REMARKS/ARGUMENTS

Applicant respectfully requests reconsideration and withdrawal of the rejections set forth in the above-identified Office Action.

By this Amendment, non-elected claims 38-53 (i.e., claims which were considered in Groups II and III in the Restriction Requirement) have been canceled without prejudice to filing divisional applications thereon. New claims 61-67 have been added to claim specific features of Applicant's invention. Claims 61-66 call for the nylon film to be nylon 666, the nylon layers to be nylon 6 and the second nylon layer to be attached to the nylon film by an intermediate adhesive. Support for these claims appears throughout the specification, e.g., page 5, line 21 to page 6, line 9. Claim 66 calls for the silicone oil to be a food grade silicone oil, support for which appears, for example, at page 9, lines 20-26 of the specification. Claim 67 calls for a specified oxygen transmission rate, as claimed in claim 17, for example.

It is respectfully pointed out that in Applicant's response filed August 11, 2003, Applicant traversed the restriction requirement set forth in the July 1, 2003 Office Action. No mention of this traverse or whether the restriction requirement is made final appears in the Office Action dated October 27, 2003 ("First Office Action"). Moreover, the status of claims 1-28 and 54-60 (which were subject to an election of species requirement in the First Office Action that was traversed) is not mentioned on the Office Action Summary accompanying the First Office Action. It is submitted that these claims are still pending, and presumably are withdrawn as being drawn to non-elected species. Clarification of these points is respectfully requested.

Prior to discussing the rejections set forth in the First Office Action, it is believed that it would be helpful to briefly review Applicant's invention. The present invention is directed to a film which is useful as a laminate film for specialty meat packaging. The use of modified atmosphere packaging of meats is known. To ensure that the package is

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resistant to the formation of condensation on the inside of the package, an antifog component has been blended with or coated onto a sealant film.

However, when a multilayer film which includes polar materials, such as nylon, is employed and the film is wound up into a roll, the antifog component tends to be drawn toward the polar nylon layer and away from the non-polar layer (such as polyethylene). As a result, the antifog layer tends to migrate out of the polyethylene layer and into the nylon layer, which compromises the nylon layer and degrades the performance of the antifog property of the film, resulting in condensation formation.

Applicant has discovered that if the nylon film of such a structure is coated with a silicone oil, when in roll form the silicone oil prevents migration of the antifog component from the polyethylene layer to the nylon layer, thus ensuring good antifog performance of the multilayer film as well as retaining other desirable properties.

Next, each of the rejections will be discussed.

I. The Rejection of Claims 29-37 under 35 USC §112 is Unwarranted and Should be Withdrawn

Claims 29-37 were rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the invention due to the use of the term "a sealant film". This rejection is respectfully traversed.

It is submitted that one skilled in the art would readily understand that a sealant film is a sealable film. The term "sealant film" has been widely used in the art. For example, in U.S. Patent 5,591,390 to Walton et al. which was cited against the claims (see below), this term is employed, for example, at col. 9, line 65. Since it is proper for an applicant to be his or her own lexicographer, and since the objected to term previously has been used in the art, it is respectfully submitted that such term is proper in claims 29-

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37. Therefore, withdrawal of this ground of rejection is respectfully requested.

It was also stated that it was unclear which layer of the film actually seals when sealing takes place, and which is bonded to the nylon 6 film. The submission of a drawing was suggested. Applicant submits that the specification and claims make it quite clear which is the sealant (or sealable) layer. This is the polyethylene layer which is known to have a lower melting point than the nylon layers. For example, at page 18, line 26 to page 19, line 3 of the specification it is pointed out that the film is placed on and heat sealed to a container such that the antifog composition is facing inward and the nylon film is facing outward. Thus, the structure of the presently claimed film and which is the sealing layer are indeed pointed out and distinctly claimed. Therefore, withdrawal of this ground of rejection is also warranted and requested.

To avoid any concern about the structure that is claimed, claim 29 has been amended to recite that the second nylon layer is attached to the second surface of the nylon film. It is submitted that drawings should not be required. However, attached hereto is a sketch which may aid the Examiner in an understanding of the invention. This shows the type of structure claimed in claims 29-37 and 61-67. These claims refer to the structure which is disclosed, for example, at page 20, lines 1-15 of the specification.

In view of the above, it is respectfully submitted that claims 29-37 (as well as new claims 61-67) fully comply with 35 USC §112 and that such rejection be withdrawn.

II. Claim 37 as Amended Fully Complies with 35 USC §112

Claim 37 was rejected under 35 USC §112, second paragraph, due to the presence of the phrase "may comprise". In response to this rejection, the term "may comprise" has been changed to "comprises", which eliminates any potential indefiniteness of the claim. Accordingly, it is submitted that claim 37 as amended fully complies with 35 USC §112 and therefore the rejection of claim 37 on this ground is submitted to have been obviated.

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Accordingly, withdrawal of this ground of rejection is submitted to be in order.

III. The Rejection of Claims 29-37 under 35 USC §103 (a) is Improper and Should be Withdrawn

The claims were rejected on the combination of Walton et al. (U.S.P. 5,591,390) in view of Japanese Patent No. 10110096. This rejection is most respectfully traversed.

It was alleged that Walton et al. disclose a packaging film comprising an antifogging agent and is coated with a silicone oil. It was further alleged that Walton et al. teach that the film is equivalent to a film comprising at least one nylon layer and at least one ethylene vinyl alcohol layer, with the polyethylene layer being the outermost seal layer.

It is submitted that Walton et al. is not directed to the problems addressed by this invention and does not disclose or suggest Applicant's solution thereto. Walton et al. is in fact directed to a method of making packaging and wrapping film which is based primarily on a unique type of polyethylene film. Walton et al. states at col. 7, lines 32-37 that the substantially linear polymers employed are unique. Be that as it may, the reference simply does not suggest the structure claimed herein. Walton et al. suggests that additives can be used to enhance the antiblocking and coefficient of friction characteristics of the film; these additives are: "untreated and treated silicon dioxide, talc, calcium carbonate, and clay, as well as primary and secondary fatty acid amides, silicone coatings, etc." [see col. 9, lines 20-35]. It is also stated in Walton et al. that other additives to enhance the anti-fogging characteristics may also be added [col. 9, lines 25-28]. It is abundantly clear from this description that these additives are part of the polyethylene layer. There is no suggestion whatsoever of coating a silicone oil on a nylon layer in a multilayer film, inter alia, as claimed herein.

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It was stated in the First Office Action that Walton et al. also teach that the film is equivalent to a film comprising at least one nylon layer and at least one ethylene vinyl alcohol layer bonded together by adhesive layers, and col. 14, lines 66-67 and col. 15, lines 3-20 were relied upon for such statement. Applicant respectfully submits that Walton et al. has no disclosure of any such equivalence. Indeed, the disclosure at col. 14, line 66 to col. 15, line 20 in its entirety is as follows:

“For coextruded or laminated multilayer film structures (e.g., 3 and 5-layer film structures), the substantially linear ethylene polymer described herein can be used as a core layer, an outer surface layer, an intermediate layer and/or a inner sealant layer of the structure. Generally for a multilayer film structure, the substantially linear interpolymers or homopolymers described herein comprise at least 10 percent of the total multilayer film structure. Other layers of the multilayer structure include but are not limited to barrier layers, and/or tie layers, and/or structural layers. Various materials can be used for these layers, with some of them being used as more than one layer in the same film structure. Some of these materials include: foil, nylon, ethylene/vinyl alcohol (EVOH) copolymers, polyvinylidene chloride (PVDC), polyethylene terephthalate (PET), oriented polypropylene (OPP), ethylene/vinyl acetate (EVA) copolymers, ethylene/acrylic acid (EAA) copolymers, ethylene/methacrylic acid (EMAA) copolymers, ULDPE, LLDPE, HDPE, MDPE, LMDPE, LDPE, ionomers, graft-modified polymers (e.g., maleic anhydride grafted polyethylene), and paper. Generally, the multilayer film structures comprise from 2 to about 7 layers.”

Thus it can be seen that the reference suggests a variety of other types of materials for other layers in the film, including paper, nylon, etc. Indeed, a total of at least 18 such materials are disclosed. Although nylon and ethylene vinyl alcohol (EVOH) are two materials which are listed, there is nothing in the reference which would suggest layers of both of these materials in combination, much less in the manner claimed herein.

Claims 29-37 (and 61-67) call for, inter alia, a layer of polyethylene and a layer of nylon which is coated with silicone oil. The polyethylene is part of the sealant film, which also comprises a nylon/EVOH/nylon structure. The second nylon of the latter structure is adhered to the nylon film. Thus, the film has one surface (outer surface)

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which is a nylon film coated with a silicone oil and another surface (inner surface) which is a polyethylene film coated or blended with an antifog composition. There is nothing in Walton et al. to suggest such a structure, or especially a structure where a combination of nylon/EVOH/nylon film is utilized.

Nowhere in Walton et al. is it stated that their film "is equivalent to a film comprising at least one nylon layer and at least one ethylene vinyl alcohol layer", as stated in the First Office Action. Their structure is clearly distinct from that claimed by Applicant. Moreover, Applicant's claims call for a coating of silicone oil over the nylon film, which prevents the migration of the antifog composition to the nylon layer. In contrast, Walton et al. only disclose using a silicone coating on a polyethylene film for antiblocking or coefficient of friction purposes. So it is clear that Walton et al. do not teach a silicone oil coating on a nylon film surface, and it is submitted that one skilled in the art would not be taught from Walton et al. to use its silicone coating on the nylon layer since (a) it is only disclosed as a coating on a polyethylene layer and (b) it is not employed for blocking the migration of an antifog composition in or on a polyethylene layer towards an adjacent nylon layer.

Accordingly, since Walton et al. neither suggests the structure or purpose of the multilayered film claimed herein, it is submitted that these claims are indeed patentable over Walton et al. It could only be through the improper use of hindsight to suggest that one skilled in the art would (1) chose nylon from the 18 or so other layers suggested, (2) chose another nylon layer from the 18 other layers, (3) chose EVOH from the list of 18 layers to be in combination with the nylon, (4) chose another nylon from the list of 18 layers to be adjacent to the EVOH layer, (5) include an antifog component in the polyethylene layer and (6) include a silicone oil coating on the surface of the nylon film. It is therefore respectfully submitted that the claimed invention is clearly patentable over Walton et al.

The teaching of Japanese Patent No. 10110096 does not rectify the failures of the

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Walton et al. disclosure. All the Japanese patent discloses is the use of certain nylons in a packaging film. The nylon film of this patent is a blend of nylon 46, nylon 6 and/or nylon 66, and optionally a copolymer of nylon 6. Even if it were proper to combine the teachings of both references, all that would be suggested is the use of a nylon 6-containing polymer as the nylon layer of Walton et al. The deficiencies in Walton et al. pointed out above would still not be overcome.

Therefore, Applicant respectfully submits that claims 29-37 are indeed patentable over the proposed combination of Walton et al. and the Japanese patent, and that the obviousness rejection based on these references should be withdrawn. Likewise, it is submitted that dependent claims 61-67 are also patentable over these references.

IV. The Dependent Claims are Further Patentable Over the Proposed Combination of References

Additionally, it is submitted that features of the dependent claims are further not shown or suggested in the applied references. Claim 30 calls for at least one of the nylon layers to be corona treated. It is submitted that this is not merely a process step, but corona treatment changes the nature of the surface of the film. Since neither reference discloses corona treatment of its films, much less a nylon layer, it is respectfully submitted that claim 30 is additionally patentable.

Claim 31 calls for the silicone oil to comprise a surface active lubricant. This is not shown in either of the applied references and as such this claim is submitted to be patentable for this additional reason. The statement in the First Office Action that Walton et al. disclose coating with a silicone oil is incorrect since the reference only discloses "silicone coatings". The fact that the coating of Walton et al. is a silicone coating does not teach a surface active lubricant as claimed in claim 31.

Claim 32 calls for the silicone oil to comprise polydimethylsiloxane. Likewise, in

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the First Office Action the statement that the silicone coating of Walton et al. is a surface active lubricant comprising a polydimethylsiloxane is incorrect. There is nothing in the reference to suggest that a polydimethylsiloxane be employed. Consequently, claim 32 is submitted to be additionally patentable.

Claim 37 (as amended) calls for the nylon layer to be a layer of nylon/EVOH/nylon. This structure of the nylon layer is not taught by either reference, and certainly the references in combination do not teach all of the layers claimed. Therefore, claim 37 is submitted to be patentable for this additional reason.

With regard to the new claims, claim 61 calls for the nylon film to be a nylon 666. This feature is not shown in either reference as claimed herein, and therefore this claim is submitted to be additionally patentable. Claim 62 is dependent on claim 61 and further specifies the use of nylon 6 in the layers; the references do not show the combination of materials in the manner claimed and thus this claim is submitted to be patentable for this additional reason.

Claim 63 calls for the presence of a tie layer and the multilayer film of claim 63 is likewise not shown in either reference or their combination. Accordingly, claim 63 is further patentable.

Claim 64 calls for the nylon layers to be nylon 6 and is submitted to be patentable for the same reasons as the other claims.

Claim 65 calls for the combination of nylon 666 and nylon 6 and is submitted to be patentable for the same reasons as claims 61 and 62.

Claim 66 (dependent on claim 65) further calls for the use of a food grade silicone oil and this is not disclosed in either reference. Accordingly, this claim is submitted to be further patentable.

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Claim 67 specifies a certain oxygen transmission rate of the film structure, which is likewise not disclosed or suggested in either reference or in their combination. As such, it is submitted that claim 67 is further patentable over the applied references.

V. Summary

In view of the above, it is respectfully submitted that claims 29-37 and 61-67 are patentable and should be allowed. In addition, the election of species requirement should be withdrawn and claims 1-28 and 54-60 likewise be held to be patentable and allowed. Therefore, withdrawal of all of the rejections and allowance of the application are respectfully requested.

Should the Examiner believe that a discussion with Applicant's attorney would in any way advance the prosecution of this application, he is respectfully requested to telephone the undersigned.

Respectfully submitted,
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Attachment

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SKETCH OF MULTILAYER FILM

Silicone Oil
Nylon Film
Second Nylon Layer
EVOH Layer
First Nylon Layer
Tie layer
Polyethylene Layer with Antifog